Net Scan Calibration - 2

Use emulsion track data from located events

Match to SF tracks

Compare offsets with `m file` calibration

Need "guaranteed" located events with high multiplicity for best results

⇒ use emulsion vertices with ≥ 4 tracks
always choose the highest multiplicity (see Vittorio's work) and reject event if more than one vertex has same (maximum) multiplicity.

Need method for comparing emulsion and SF data

Comparison Algorithm $\rightarrow$ find angular offsets

Using only SF lines with vertex placed at the (true) emulsion vertex

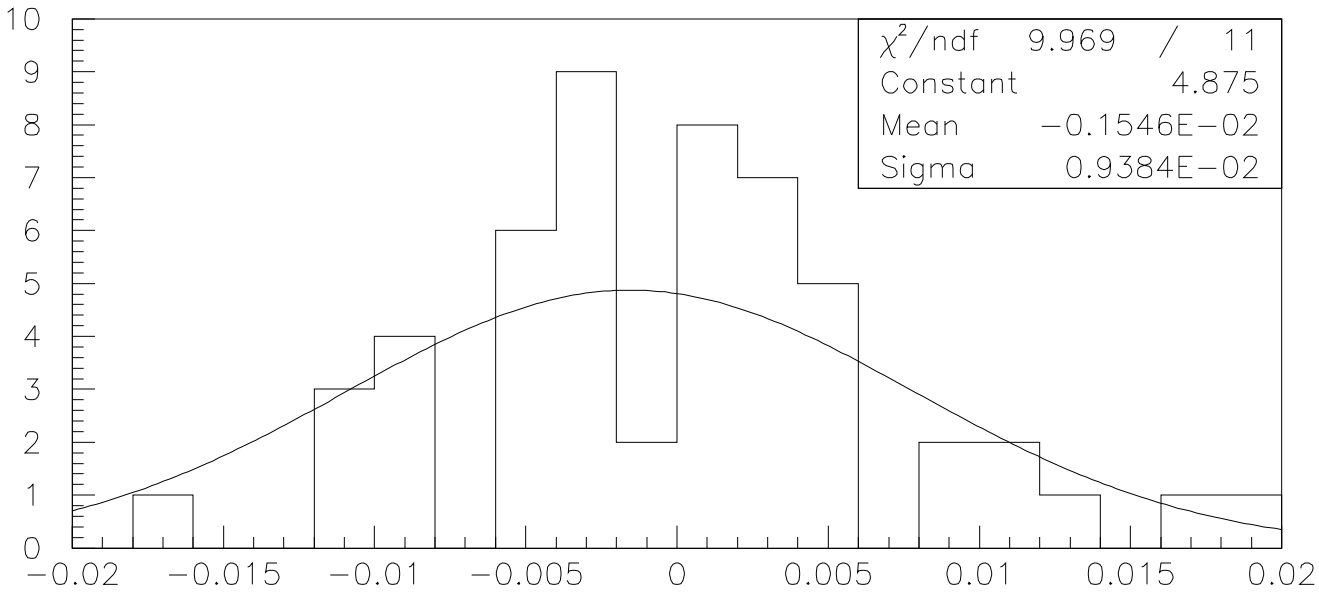
Several quantities can discriminate:

1. $\theta_{SF} - \theta_{EM}$ (clearly)
2. IP at vtx(z) (2nd interactions, bad tracks)
3. *no. hits per SF line*
4. *isolated tracks*

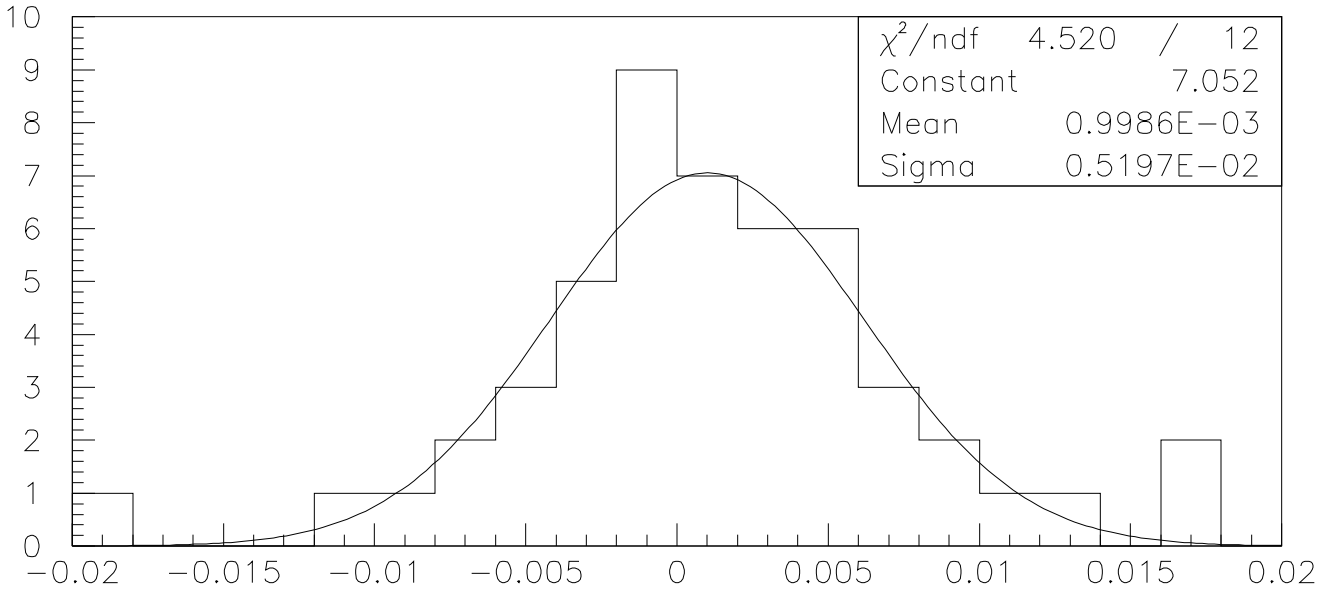
Still need to develop and optimize the function which incorporates the above quantities

An example using only (1) and (2) follows...

$\theta_{SF} - \theta_{EM}$

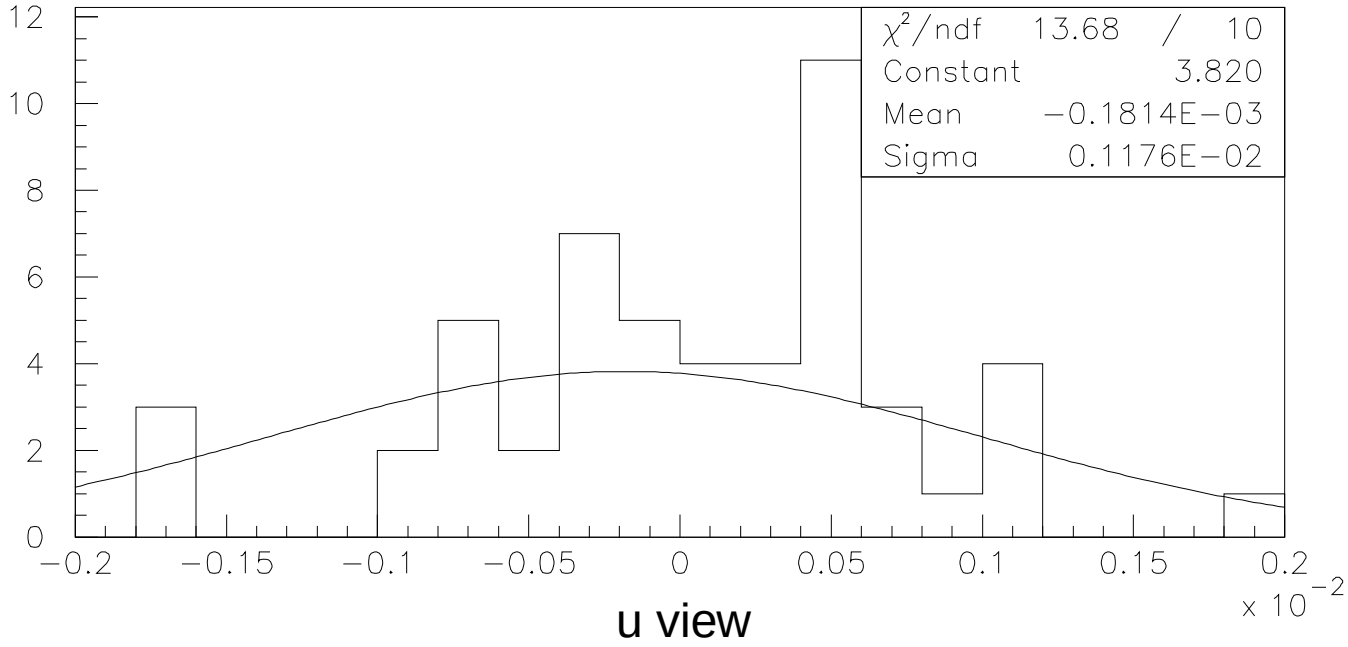


u view

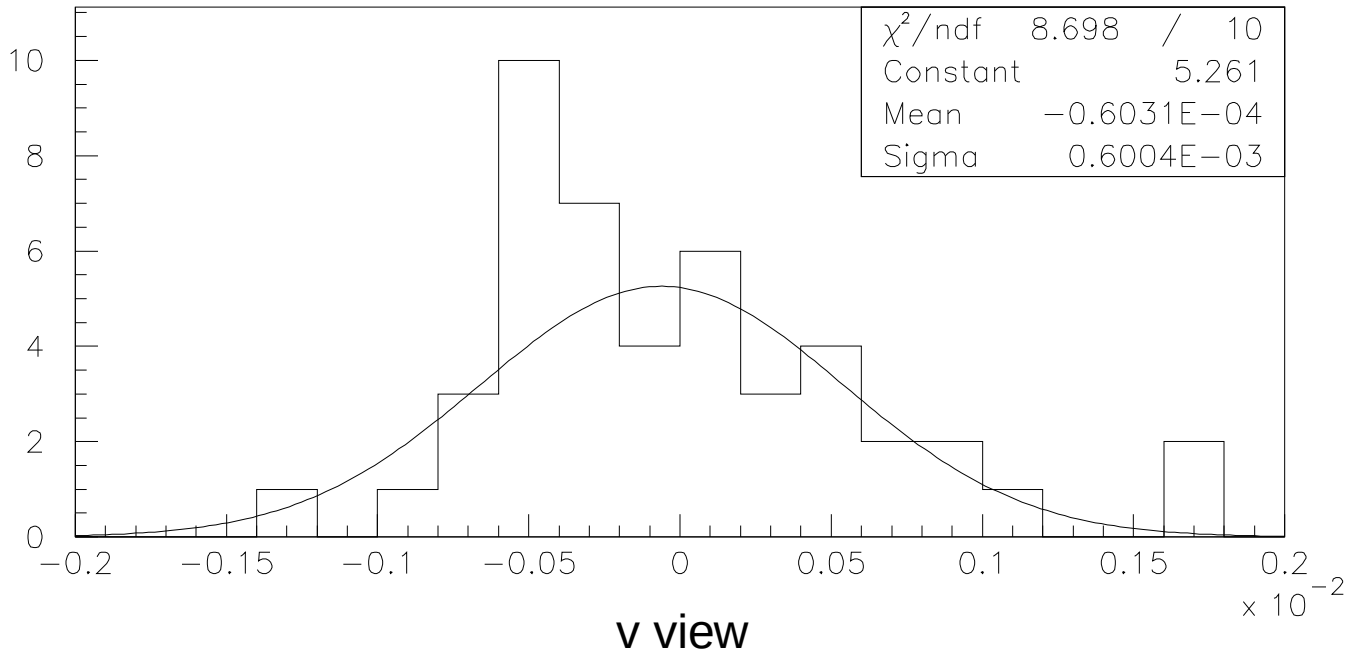


v view

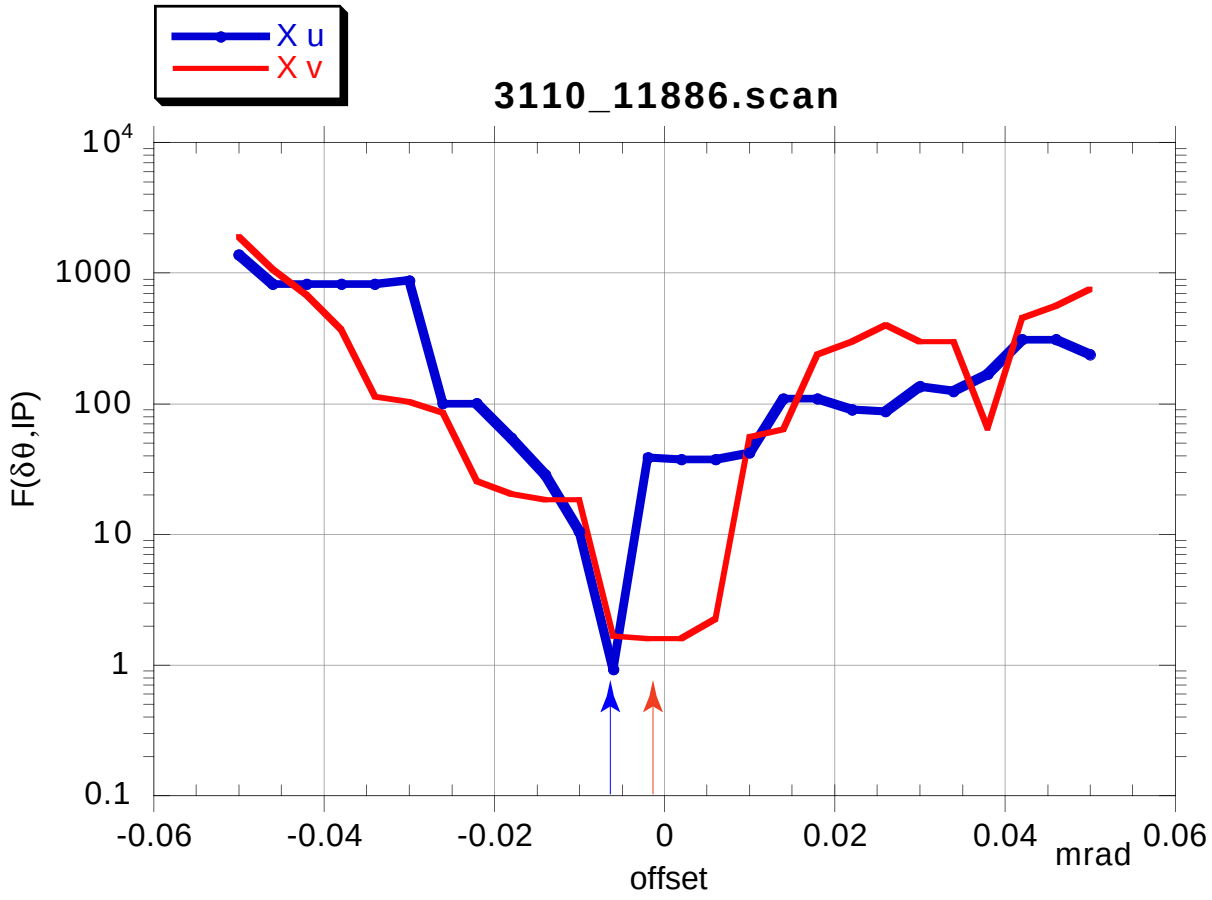
IP to emulsion vertex



u view



v view



graphs are a function of $\Delta\theta$ and IP and should be minimum offset when SF and emulsion tracks are matched.

arrows show the predicted offset from the analysis of the "eyes" from the `m file` for this event.